

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7504

Joint Petition of Village of Orleans Electric Department)
("Orleans") and Barton Village, Inc., Electric)
Department ("Barton") for a certificate of public good,)
pursuant to 30 V.S.A. Section 248, authorizing Orleans)
and Barton to replace 5.5 miles of an existing 46 kV)
transmission line, that runs from the Barton Tap, located)
on Route 16 south of Barton Village, to the Heath)
substation, located on Baird Road in Barton, Vermont,)
including the relocation of two segments of the line)

Hearing at
Montpelier, Vermont
September 21, 2009

Order entered: 11/16/2009

PRESENT: Lars Bang-Jensen, Hearing Officer

APPEARANCES: Joslyn Wilschek, Esq.
William Piper, Esq.
Primmer Piper Eggleston & Cramer PC
for Village of Orleans Electric Department and Barton Village,
Inc., Electric Department

Geoffrey Commons, Esq.
for Vermont Department of Public Service

Judith Dillon, Esq.¹
for Vermont Agency of Natural Resources

I. SUMMARY

This proceeding relates to a joint petition filed with the Public Service Board ("Board") by the Village of Orleans Electric Department ("Orleans") and Barton Village, Inc., Electric Department ("Barton") on March 20, 2009. Orleans and Barton request that the Board issue a certificate of public good, pursuant to 30 V.S.A. § 248(a)(2), to permit the construction of a

1. Filed notice of appearance in this docket, but did not attend the technical hearing.

46 kV transmission line, approximately 5.5 miles in length, to replace an existing 46 kV transmission line. In this proposal for decision, I find that the proposed project will promote the general good of the state and recommend to the Board that it issue a certificate of public good subject to certain conditions.

II. PROCEDURAL HISTORY

In support of its joint petition, Orleans and Barton (collectively, "Petitioners") filed prefiled testimony of Mr. John Morley III, the manager of Orleans, along with various exhibits, on March 20, 2009. Supplemental prefiled testimony of Mr. Morley was filed on April 13, 2009, together with revised exhibits, and on May 12, 2009.

A prehearing conference was held on April 21, 2009. A partial schedule for this proceeding was set forth in the Prehearing Conference Memorandum and Scheduling Order of May 8, 2009. Following notice, a public hearing in Orleans was held on June 4, 2009, which was attended by two members of the public, including a landowner affected by the proposed project.² A site visit was made on the same date. No motions to intervene were filed in this docket.

A stipulation in the form of a memorandum of understanding ("MOU") among the Petitioners, the Vermont Department of Public Service ("Department") and the Vermont Agency of Natural Resources ("ANR"), which included proposed findings, was filed on July 30, 2009. On the same date, the Department also filed its determination under 30 V.S.A. § 202(f) regarding the proposed project's compliance with the Vermont Electric Plan. Following notice, a technical hearing in this docket was held on September 21, 2009.

III. FINDINGS

Based on the entire record, including the joint petition, the prefiled testimony, the supplemental prefiled testimony, evidence presented at the technical hearing, the MOU and other admitted exhibits, I conclude that this matter is ready for decision and report the following findings to the Board in accordance with 30 V.S.A. § 8.

2. The landowner expressed concerns about the effect the line might have on his wood lot operations. The Petitioners indicated that they would work with him to find an acceptable solution to address his concerns.

Background and Project Description

1. Petitioners are companies as defined by 30 V.S.A. § 201 and are subject to the Vermont Public Service Board's jurisdiction under 30 V.S.A. § 203. Petitioners are also duly organized municipal electric utilities under Chapter 79 of Title 30. Petition at 1.

2. Orleans owns and operates an electric system serving the Village of Orleans and part of the towns of Barton, Irasburg, Brownington, and Coventry. Orleans' offices are located at 1 Memorial Square, Orleans, Vermont. Petition at 1.

3. Barton owns and operates an electric system serving Barton Village, the towns of Westmore and West Charleston, and parts of the towns of Barton, Sutton, Irasburg, and Brownington. Barton's offices are located at 17 Village Square, Barton, Vermont. Petition at 1 and 2.

4. The Petitioners plan to rebuild an existing 46 kV transmission line ("46 kV Tap Line"), 5.5 miles in length, that runs from the Barton Tap, located on Route 16 south of Barton Village, to the Heath substation, located on Baird Road in Barton. Morley pf. at 3.

5. The 46 kV Tap Line is a radial line that serves the entire distribution facilities of Orleans and Barton. Morley pf. at 6-7.

6. The existing 46 kV Tap Line was constructed approximately 50 years ago and is now in need of major reconstruction and replacement in order to maintain safe and reliable service. Morley pf. at 3-4.

7. The Petitioners will replace the existing wood poles, which are forty feet tall, with 121 wood poles that will be between forty-five to fifty-five feet tall. The existing poles are very weathered and are showing signs of age and stress and are now in need of replacement. Morley pf. at 4 and 6; exh. Petitioners 2.

8. The Petitioners also will replace the existing conductors, which are copper-clad 2A wires, with new 336.4 kcmil ACSR (Aluminum Conductor Steel Reinforced) wire. The existing conductors are aged and undersized for use at 46 kV by modern construction standards. The new larger conductors will increase capacity while maintaining the current operating voltage. Morley pf. at 3-4 and 7.

9. The existing porcelain insulators were upgraded in 1973 to 35 kV class, which is 76 % of current operating voltage, and have proven to be susceptible to breakage. The Petitioners will replace these insulators with polymer insulators rated for 46 kV operation. Morley pf. at 4 and 6-7.

10. In addition to replacing the existing poles, conductors and insulators with new equipment, the Petitioners will replace guys, anchors, crossarms and related equipment with new similar hardware and equipment. Morley pf. at 4.

11. As part of the Project, the Petitioners plan to relocate 1.6 miles of the line in two segments. One segment of the line now running through the middle of the Barton Golf Course will be relocated to Telfer Hill Road, a public right-of-way. A second segment of the line running between the Barton Tap and the State Highway garage will be relocated from its present cross-country location to the edge of Glover Road (Route 16), also a public right-of-way. Morley pf. at 4-5; exh. Petitioners 1.

12. The remainder of the new 46 kV Tap Line will generally run adjacent and parallel to the existing line (nominally centered twenty feet from the existing line) because it is not practical to perform extensive rehabilitation on an energized 46 kV line. On one parcel of land the new line will be constructed forty feet to the east of the existing line instead of twenty feet. The existing line will be removed once the new line is placed in service. Exh. Petitioners 1 at 3; Morley supp. pf. (4/13/09) at 4.

13. In response to landowner concerns, however, the Petitioners plan to construct the new line in the same place as the existing line in two locations. This plan will necessitate the construction of two temporary bypass lines (one consisting of eight poles and the other of two poles) adjacent to the existing line. The temporary bypass lines will be removed once the new line is completed. Morley supp. pf. (4/13/09) at 3-4; exh. Petitioners 2.

14. There is a 13.2 kV distribution line which supplies Barton that is attached below the existing 46 kV Tap Line along three-fourths of its length. For the most part, the Petitioners will relocate that section of the distribution line to the new 46 kV Tap Line. The 13.2 kV underbuild will use its own separate pole structures to cross Interstate-91, but will otherwise continue to share the 46 kV line poles. Morley pf. at 5; exh. Petitioners 1 at 3.

15. Where practical, the poles for the new 46 kV Tap Line will also be used to support communications conductors. On the east side of Glover Road (Rte. 16) south of Interstate-91, Barton and FairPoint Communications jointly own poles that now carry Barton's distribution circuit and FairPoint's lines. The 46 kV Tap Line will be moved from its current cross-country location to this roadside location and the existing poles will be replaced with taller poles to accommodate the 46 kV Tap Line and the underbuilds. Morley pf. at 8; exh. Petitioners 1 at 9 and 2.

16. Joint ownership of a portion of the existing FairPoint pole plant within the public way on Telfer Hill Road is also proposed as part of the Project. Along much of Telfer Hill Road where the new 46 kV Tap Line will be located, however, the existing communications conductors are underground. Morley pf. at 8; exh. Petitioners 1 at 9.

17. Orleans and Barton have a designated area in Barton that they now use to store utility equipment, which will also be used as the lay down area for the project. Morley pf. at 8.

18. The Petitioners will not build new access roads for the project but will use existing access roads. Morley pf. at 8.

19. There are no recorded easements for the existing 46 kV Tap Line. Permanent easements for a 50-foot right-of-way will be obtained for the portion of the new 46 kV Tap Line that will remain cross-country. Permanent easements for a 25-foot right-of-way will be obtained for the portion of the new 46 kV Tap Line that will run near the edge of public roadways. Exh. Petitioners 1 at 1.

20. The Petitioners entered into an agreement between themselves on November 27, 2007, which among other things provides for joint ownership of the new 46 kV Tap Line and allocates the costs of the project between them. Under this agreement, the cost of the transmission line project will be shared equally by Barton and Orleans. Barton is solely responsible for paying the costs related to its 13.2 kV distribution underbuild on the new 46 kV Tap Line. Petition at 3; Morley pf. at 9; exh. Petitioners 6.

21. The estimated cost of the 46 kV Tap Line reconstruction is approximately \$2,850,000. The incremental costs attributable to the relocation of Barton's 13.2 kV distribution line to the new 46 kV Tap Line is approximately \$715,000. The total cost of the proposed project,

including the underbuild of the 13.2 kV distribution line and \$137,810 in projected costs associated with the permitting process, is estimated at \$3,702,810. Morley pf. at 9; exh. Petitioners 10 at 1 and 10.

Orderly Development of the Region
[30 V.S.A. § 248(b)(1)]

22. The proposed project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of municipal legislative bodies, and the land conservation measures contained in the plan of the affected municipality. This finding is supported by findings 23 through 26, below.

23. The 2008 Town of Barton Municipal Development Plan discusses the poor condition of the transmission system and the aging lines in that area. The energy section of the Barton Plan also states: "Most recently, Barton and Orleans are in the process of upgrading the 45 kV transmission line between the two systems." The Barton Plan also expresses concern about the rate impacts of electric system upgrades. Morley pf. at 12-13; supp. pf. (5/12/09) at 3.

24. Chapter Two of the regional plan of the Northeastern Vermont Development Association states as its goals to "[p]rovide an adequate, reliable, and secure energy supply to meet the region's needs," and "[l]imit the negative aesthetic impacts of power generation and distribution facilities." Morley pf. at 13.

25. The proposed project involves the replacement of an existing transmission line with a new transmission line in Barton in order for Barton and Orleans to maintain safe and reliable services. For most of its length, the new 46 kV Tap Line will run adjacent to the current location of the line in the existing utility corridor. Two segments of the 46 kV Tap Line will be relocated to public right-of-ways from their current cross-country locations. The Petitioners have worked with their aesthetic consultant to mitigate any undue aesthetic impact related to the relocated segments of the line. Petition at 3; Morley pf. at 3-4 and 13; exh. Petitioners 2.

26. The Village of Barton Trustees, the Town of Barton Planning Commission and the Northeastern Vermont Development Association waived advance notice requirements with respect to the proposed project. None of these entities sought to intervene in this proceeding nor

did they file recommendations or comments with the Board relating to the proposed project. Morley pf. at 13; exh. Petitioners 7.

Need for Present and Future Demand for Service

[30 V.S.A. § 248(b)(2)]

27. The proposed project is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and load management measures. This finding is supported by findings 28 through 34, below.

28. At Route 16 in Barton, the 46 kV Tap Line taps into a 46 kV transmission line that runs from the VELCO-Irasburg substation to the Portland Pipeline substation. The 46 kV Tap Line runs from the tap point to the Heath substation at which the voltage is reduced from 46 kV to 13.2 kV for distribution to the Barton and Orleans systems. The 46 kV Tap Line is the only transmission connection for both Barton and Orleans and serves the entire distribution facilities of Orleans and Barton, which include the villages of Barton and Orleans, and part of the towns of Barton, Brownington, Westmore, Charleston, Irasburg, Sutton, and Coventry. Accordingly, the reliability of the 46 kV Tap Line, a radial line with no backup system, is critical to the distribution systems of Barton and Orleans. Morley pf. at 6-7; exh. Petitioners 1 at 1-2.

29. The Petitioners need to replace the existing 46 kV Tap Line in order to address issues related to the line's undersized conductor, inadequate insulation and aged equipment. Morley pf. at 6-7; *see* findings 6, 7, 8, 9 and 28, above.

30. The Petitioners engaged a consultant, PLM Electric Power Engineering, which considered two alternative approaches to the proposed project: (1) supply the entire Barton and Orleans load at the distribution voltage level from Vermont Electric Cooperative's ("VEC") Burton Hill Substation (referred to as "Alternative One"); and (2) construction of a new 46 kV to 13.2 kV substation in Barton, Vermont (referred to as "Alternative Two"). The consultant did not recommend either approach. Morley pf. at 6-7; exh. Petitioners 1 at 7-9.

31. Alternative One is not as viable a solution because: (1) it would require a second transformer at VEC's Burton Hill substation, which would "likely require an expansion of VEC's substation yard;" (2) the Barton and Orleans 13.2 kV distribution system operates at a different

primary voltage than VEC's 12.47 kV distribution system; (3) the existing conductor on VEC's system does not have sufficient capacity to carry the Barton and Orleans system load; and (4) in order to individually meter the Barton and Orleans systems, the alternative would require a new three-phase circuit. Exh. Petitioners 1 at 7-8.

32. Alternative Two would introduce a new substation where none currently exists in a high visibility area and would require a new 13.2 kV circuit to transfer power from the new substation to Orleans. The new distribution circuit would be similar in length to the 46 kV Tap Line and thus would not alleviate the need to build an electric line. Morley pf. at 10-11; exh. Petitioners 1 at 8-9.

33. The reduction in the supply voltage from 46 kV to 13.2 kV, along with the associated reconfiguration of the system, would also result in increased I^2R losses overall under both Alternatives One and Two. Exh. Petitioners 1 at 7.

34. Given that the 46 kV Tap Line is the only transmission connection for the Barton and Orleans systems, it would not be possible to meet present and future demand for service in a more cost-effective manner through energy conservation programs and measures and energy efficiency and load management measures. Morley pf. at 11; finding 29, above.

System Stability and Reliability

[30 V.S.A. § 248(b)(3)]

35. The proposed project will not adversely affect system stability and reliability. When completed, the proposed project, through the equipment upgrades, is expected to have a positive impact on the reliability of the Barton and Orleans systems. Morley pf. at 11-12; exh. Petitioners 1 at 9.

Discussion

While the proposed project is expected to improve system stability and reliability, the replacement of the existing 46 kV Tap Line and the use of temporary bypasses will result in some system outages during the construction phase. The Petitioners have not yet identified the anticipated number and length of electrical outages related to the project or determined how the temporary 46 kV bypasses will be energized and de-energized. Accordingly, the Petitioners

should provide more information about these matters prior to commencing construction as a condition of the certificate of public good.

Economic Benefit to the State

[30 V.S.A. § 248(b)(4)]

36. The proposed project will result in an economic benefit to the state and its residents. It will improve reliability and increase the capacity of the 46 kV Tap Line, which are important for manufacturers and other business customers. Also, the replacement of the existing conductor with the new larger conductor is expected to result in demand and energy loss savings, which are estimated to have a twenty-year net present value of \$271,000. Morley pf. at 13-14; exh. Petitioners 1 at 5.

**Aesthetics, Historic Sites, Air and Water Purity,
the Natural Environment and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

37. The proposed project will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment, and public health and safety, subject to, and upon compliance with, the conditions set forth in the proposed order below. This finding is supported by findings 38 through 66 below, which give due consideration to the criteria specified in 10 V.S.A. § 1424a(d) and 10 V.S.A. § 6086(a)(1) through (8) and (9)(K).

Outstanding Resource Waters

[10 V.S.A. § 1424a(d)]

38. There are no outstanding resource waters along the proposed route of the new 46 kV Tap Line. Morley pf. at 18; exh. Petitioners 9 at 3.

Water and Air Pollution

[10 V.S.A. § 6086(a)(1)]

39. The proposed project does not involve any activities that would create undue air pollution. Morley pf. at 18.

40. The proposed project will not result in undue noise pollution. Morley pf. at 19.

41. The Project will not result in undue water pollution. Morley pf. at 19.

Headwaters

[10 V.S.A. §6086(a)(1)(A)]

42. The area of the proposed project encompasses wetlands and intermittent stream channels. The proposed project will have minimal impacts in stream and wetland areas, and will not have an adverse impact on headwaters. Morley pf. at 19; exh. Petitioners 9 at 3-4.

Waste Disposal

[10 V.S.A. §6086(a)(1)(B)]

43. Petitioners will bring the used transmission components to the Barton Yard where the Petitioners store utility equipment. The Petitioners will sell the conductors and steel components to scrap dealers. The Petitioners will either dispose of the old poles in accordance with applicable environmental regulations or, if permitted by ANR and applicable environmental regulations, use the old poles to build cold storage structures to house equipment. The remaining waste will be disposed of at the Coventry landfill. Morley pf. at 20; exh. Joint 1.

Discussion

There is some uncertainty as to whether applicable state and federal regulations would permit the Petitioners to use the old poles from the existing 46 kV Tap Line to build structures to house equipment. Accordingly, as a condition of the certificate of public good, the Petitioners should provide an update as to their plans for the disposition of these poles before commencing construction, and should be required to comply with all applicable regulations.

Water Conservation

[10 V.S.A. §6086(a)(1)(C)]

44. The proposed project will not require noticeable amounts of water, and, thus, water conservation is not an issue. Morley pf. at 20.

Floodways

[10 V.S.A. §6086(a)(1)(D)]

45. Approximately 1.3 miles of the new 46 kV Tap Line will be located within the floodplain of the Barton River in the existing utility corridor. The Petitioners plan to install 38

new poles within the 100-year mapped floodway. The new poles will not be located on the banks of the Barton River and are not likely to restrict or divert the flow of floodwaters to any greater extent than the existing poles. Morley pf. at 21; exh. Petitioners 9 at 1-2.

Streams

[10 V.S.A. §6086(a)(1)(E)]

46. There are fourteen stream crossings along the proposed route. The poles will span the streams and active stream banks. One intermittent stream associated with a wetland will be crossed with rubber swamp mats to access and install a pole. Because the stream and stream banks will be left in their natural condition and appropriate erosion controls will be taken by the use of swamp mats, the proposed project will not have an adverse impact on streams. Morley pf. at 21; exh. Petitioners 2; exh. Petitioners 9 at 3.

Shorelines

[10 V.S.A. §6086(a)(1)(F)]

47. The nearest shoreline is Crystal Lake, which is approximately 2500 feet to the east of the proposed project. No impacts are proposed within proximity to a lake or pond shoreline. Morley pf. at 22; exh. Petitioners 9 at 1.

Wetlands

[10 V.S.A. §6086(a)(1)(G)]

48. There are no Class II wetlands directly within the corridor of the proposed project. There are two Class II wetlands within the vicinity of the proposed project which were determined not to be contiguous with wetlands in the project corridor. A total of twenty-four Class III wetlands were identified along the proposed transmission corridor. The proposed project will involve temporary and/or permanent impacts to ten wetlands that will require an Army Corps of Engineers permit. The permanent impacts are 24 square feet for pole placement and 19,315 square feet for tree clearing, and the temporary impacts are 9,685 square feet for swamp mat placement. Rubber swamp mats will be placed to access poles within wetlands, which will generally be in place for approximately two weeks. In addition, the Petitioners will follow all the construction procedures for wetland areas prescribed in the environmental resource

assessment for the project. Based on the foregoing, the proposed project will not have an undue adverse impact on wetland resources. Morley pf. at 22; exh. Petitioners 9 at 4-11.

Sufficiency of Water and Burden on Existing Water Supply

[10 V.S.A. §6086(a)(2) and (3)]

49. The proposed project will not require any changes to the existing municipal water supply, so there will be no burden on existing water supplies. Morley pf. at 23.

Soil Erosion

[10 V.S.A. §6086(a)(4)]

50. There will be a minimal amount of earth disturbance associated with the removal of the existing poles and anchors and the installation of new poles and anchors. The construction associated with the placement of each pole will be started and completed within a work day. A "corner mount boom/derrick truck" will be used to remove existing poles and install new poles wherever practical. All-terrain vehicles will be used for work in or near wetlands areas. In wetlands areas, excess spoils, not needed to backfill holes, will be removed from the construction area and disposed of in an upland area. Morley pf. at 23; exh. Petitioners 9 at 13-14.

51. A stormwater discharge permit is not required because the area of actual disturbance due to excavation for pole and anchor placement does not exceed the one-acre threshold. The Petitioners will use the construction techniques set forth in the environmental resources assessment to minimize runoff. Morley pf. at 2; exh. Petitioners 9.

Transportation Systems

[10 V.S.A. §6086(a)(5)]

52. No long-term traffic impacts from the proposed project are expected, but there will be some short-term traffic impacts due to replacing those sections of the line that run along Route 16. There will be no complete road closures, but there will likely be one-lane road closures during periods of construction. Morley pf. at 24.

Educational Services**[10 V.S.A. §6086(a)(6)]**

53. The proposed project will not have any impact on educational services. Morley pf. at 24.

Municipal Services**[10 V.S.A. §6086(a)(7)]**

54. The proposed project will not have any impact on municipal services. Morley pf. at 24.

Aesthetics, Historic Sites and Rare and Irreplaceable Natural Areas**[10 V.S.A. §6086(a)(8)]****Aesthetics**

55. The proposed project will not have an undue adverse effect on aesthetics or on the scenic or natural beauty of the area, subject to, and upon compliance with, the conditions set forth in the proposed order below. The majority of the new 46 kV Tap Line follows the existing utility corridor and is generally in context with the character of the area. The changes in pole configuration are not viewed as aesthetically significant. The landscape at some locations along Tefler Hill Road is visually diverse and of high quality. The relocation of the line to the roadside of Tefler Hill Road from its current off-road location, where it is less visible, will have an adverse aesthetic impact. Adjusting pole locations, installing mitigation plantings, and raising the height of the conductor and under-grounding the 13 kV underbuild at certain locations will minimize the adverse effect. The current plan and profile for the proposed project reflects these measures and adequately mitigates the aesthetic impacts of the relocation of segments of the line. The Petitioners have also worked with the affected landowners to create a plan acceptable to both the landowners and the Petitioners. Morley pf. at 15 and supp. pf. (4/13/09) at 4; exh. Petitioners 5.

Historic Resources

56. The proposed project will not have an undue adverse effect on historic resources, subject to, and upon compliance with, the conditions set forth in the proposed order below.

57. There are a large number of areas in the utility corridor that were identified as highly sensitive for archeological resources along the relatively level ground adjacent to the Barton

River, as well as along large stretches of level ground near water sources along Telfer Hill Road. Areas found to be relatively level but more than 180 meters (590 feet) from water were ranked as having medium sensitivity for archeological resources. The corridor for the transmission line also cuts along several steep slopes, particularly between Route 5 and Telfer Hill Road. These sloped areas (although they contained several small, level areas of high or medium sensitivity) were ranked as having low sensitivity for archeological resources. Morley pf. at 17; exh.

Petitioners 8.

58. The initial scope-of-work for archeological resources called for the placement of five shovel test pits at each pole location within the 55 highly sensitive segments and one shovel test pit at each pole location in the remaining 66 medium and low sensitivity segments. The overall scope-of-work was revised and reduced following a walkover of the entire project area with staff of the Vermont Division of Historic Preservation ("DHP") on May 21, 2009. Exh. Petitioners 11.

59. No archeological sites were identified during the subsequent excavation of 106 shovel test pits in 44 pole locations within the project area. Exh. Petitioners 11.

60. Historical architectural investigations were conducted within an area of potential effect ("APE"), which extended one half-mile on either side of the 46 kV Tap Line. There are two historic districts and one individual historic property listed in the Vermont State Register of Historic Places within the APE. The new 46 kV Tap Line will not be visible from any of those historic sites. However, 192 previously un-surveyed properties were identified within the APE during field evaluation, of which 187 historic properties are eligible for the National Register of Historic Sites. The new 46 kV Tap Line will be visible from 14 of these 187 historic properties. The significant viewsheds from these 14 properties will not be adversely affected by the new 46 kV Tap Line. DHP concurs with the assessment of the Petitioners' consultant and has no concern with the effects of the proposed project on above-ground historic resources. Morley pf. at 16-17; exhs. Petitioners 8 and 11.

61. DHP concluded that the proposed project will have no adverse effect on any cultural properties that are listed on or are eligible for the state or national registers of historic places. Exh. Petitioners 11.

Necessary Wildlife Habitat and Endangered Species**[10 V.S.A. §6086(a)(8)(A)]**

62. The proposed project will not have an adverse impact on critical or necessary wildlife habitat or on any endangered species, subject to, and upon compliance with, the conditions set forth in the proposed order below. Exh. Petitioners 9 at 12.

63. No critical or necessary habitat is present within or adjacent to the project corridor and the proposed project will not have an adverse impact on critical or necessary wildlife habitat. Exh. Petitioners 9 at 12.

64. A rare plant inventory was conducted along the proposed transmission corridor in July 2008. A small population of one rare plant, Buxbaum's sedge, was located within one wetland (Wetland N). This plant is currently listed as endangered by the Vermont NonGame and Natural Heritage Program, and this is the only known occurrence of this species east of the Green Mountains in Vermont. There is a pole location in an upland area adjacent to Wetland N, but there are no proposed impacts from the proposed project to this wetland. The wetland should be flagged during construction to protect the species. Morley pf. at 25; exh. Petitioners 9 at 12.

Discussion

The environmental resource assessment prepared by Arrowwood Environmental recommended the flagging of Wetland N and concluded that this step would likely be sufficient to protect the Buxbaum's Sedge during construction. Accordingly, such flagging should be included as a condition of the certificate of public good.

Development Affecting Public Investments**[10 V.S.A. §6086(a)(9)(K)]**

65. Because the Project involves the replacement of the existing 46 kV Tap Line with a new 46 kV Tap Line, it will not have a negative impact on any public investment in a public resource, nor will it interfere with the public's use or enjoyment of, or access to such resources. Morley pf. at 25.

Public Health and Safety**[30 V.S.A. § 248(b)(5)]**

66. Through the replacement of an older transmission line and associated components with a new line and components, the proposed project will enhance the safety and welfare of the public and adjoining landowners. The Petitioners will construct the new line in accordance with the National Electric Safety Code requirements and use high-quality materials, and have committed to adhere to prudent utility construction practices throughout the construction phase. Morley pf. at 25; exh. Petitioners 1.

Least-Cost Integrated Resource Plan**[30 V.S.A. § 248(b)(6)]**

67. Because Petitioners do not yet have an approved integrated resource plan ("IRP"), they must demonstrate that the project complies with principles of integrated resource planning as defined in 30 V.S.A. § 218c. The proposed project is consistent with integrated resource planning principles. The investment in the new 46 kV Tap Line is needed as the existing facilities are near or at the end of their useful lives. The Petitioners explored alternatives to the replacement of the 46 kV Tap Line, but these were determined to be less desirable than the proposed project. The investment in the new 46 kV Tap Line will increase reliability and will result in greater line efficiencies because the new larger conductor will reduce line losses. Short circuit levels will slightly increase thereby improving the ability of the protective relays to sense and isolate faults. Minimal environmental impact will occur because the majority of the line will remain in the existing corridor and the relocated portions of the line will be in already-disturbed public rights-of-way. Morley pf. at 7, 26-27; exhs. Petitioners 1, 2 and 9.

Compliance with Electric Energy Plan**[30 V.S.A. § 248(b)(7)]**

68. The proposed project is consistent with the Department's 2005 Vermont Electric Plan. The new 46 kV Tap Line is expected to increase safety and reliability by replacing an aged line with new components. The Department filed a determination under 30 V.S.A. § 202(f) with the

Board on July 30, 2009, in which it found that the Petitioners' proposal is consistent with the Department's 2005 Electric Plan. Morley pf. at 27; exh. Joint 1.

Outstanding Resource Waters

[30 V.S.A. § 248(b)(8)]

69. There are no outstanding resource waters along the proposed route of the new 46 kV Tap Line. Morley pf. at 18; exh. Petitioners 9 at 3.

Existing or Planned Transmission Facilities

[30 V.S.A. § 248(b)(10)]

70. Existing transmission facilities can serve the proposed project without creating an undue adverse effect on Vermont utilities and customers. The proposed project involves the replacement of an existing 46 kV line with a new 46 kV line, and, therefore, can be served by existing transmission facilities without adverse effect on the existing electrical system, Vermont utilities or customers. Morley pf. at 28; exh. Petitioners 1 at 9.

IV. CONCLUSION

Based on the record and the findings set forth above, I conclude that the proposed Project will promote the general good of the state, and recommend that the Board issue a certificate of public good, with the conditions set forth in the proposed Order below.

This Proposal for Decision has been served on all parties to this proceeding in accordance with 3 V.S.A. § 811.

Dated at Montpelier, Vermont, this 15th day of October, 2009.

s/Lars Bang-Jensen

Lars Bang-Jensen
Hearing Officer

V. BOARD DISCUSSION

None of the parties filed comments on the Proposal for Decision ("PFD"). The Department filed a letter on October 26, 2009, in which it indicated it had no comments and no objection to the adoption of the PFD by the Board. In a letter filed on October 29, 2009, the Petitioners also stated they had no comments on the PFD.

ANR filed a letter on October 26, 2009, to follow-up on a query from the technical hearing about the use of the wood poles from the existing 46 kV Tap Line to build a cold storage facility to house equipment. See discussion under Finding 43 of the PFD. ANR stated that no regulatory approval is required for the proposed use of the old poles. ANR does not object to this use of wood poles that contain creosote because the intended use of the facility is to store equipment and not for human occupation. ANR also stated that it understands that the Petitioners plan to build a concrete foundation for the storage facility, which "is sufficient to minimize risk of groundwater infiltration." Accordingly, the reference to an update on the disposition of the poles from the existing 46 kV Tap Line has been deleted in the final Order and the Certificate of Public Good.

The Petitioners have each filed an Integrated Resource Plan ("IRP") with the Board, which have not been approved by the Board as of this date. IRPs for each of the Petitioners were last approved by the Board in 1996,³ but no updated IRPs have been approved since that date. Therefore, the first sentence in Finding 67, above, is modified accordingly to reflect these facts.

VI. ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings, conclusions and recommendations of the Hearing Officer are adopted, except for the change to the first sentence of Finding 67 discussed above.
2. The project as proposed, in accordance with the evidence and plans submitted in this proceeding, and as conditioned by this Order, will promote the public good of the State of Vermont in accordance with 30 V.S.A. § 248.

3. Dockets 5270-BRTN-1 and Docket 5270-ORLN-1, Orders entered May 28, 1996.

3. A certificate of public good shall be issued with the conditions set forth below:

(a) Prior to proceeding with construction, Petitioners shall obtain all necessary permits and approvals and shall file with the Board a status report and final construction plans for the proposed project, which plans shall conform substantially to the plans set forth in the record of this proceeding. Petitioners shall note any changes in the final plans from the plans approved by the Order and any party or affected person shall have ten calendar days from the date the plans are filed to comment on any such changes. Items addressed in the status report or final construction plans shall include the following: (i) the anticipated number and length of electrical outages related to the project and how the temporary 46 kV bypasses will be energized and de-energized; (ii) a revised estimate as to the total costs of the proposed project; and (iii) updates on any required permits and approvals, on any significant landowner issues, and on the process of obtaining necessary easements. Board approval of the final construction plans shall be required prior to the commencement of construction if such final plans deviate materially from the plans admitted into the record in this proceeding.

(b) Construction, operation and maintenance of the proposed project shall be in accordance with (i) the procedures and guidelines described in the above findings and in the record of this proceeding, including, but not limited to, the construction procedures prescribed for construction in wetland areas and the recommended flagging of Wetland N as described in the environmental resource assessment of Arrowwood Environmental for the project, dated April 7, 2009, and included in the record as Petitioners Exhibit 9, (ii) the terms of all necessary permits and approvals, and (iii) all applicable regulations, including, but not limited to, those of the Vermont Agency of Natural Resources, the Vermont Agency of Transportation and the U.S. Army Corps of Engineers.

(c) Petitioners shall file prompt notification with the Board at any time if actual or estimated costs of the proposed project exceed, or are anticipated to exceed, by ten percent or more the most recent filed cost estimate for the proposed project. This

condition shall include any increase of ten percent or more in the midpoint of a range of estimated costs that allows for contingencies.

(d) The Board retains jurisdiction to review, at the request of any party or affected person or on its own initiative, aesthetic mitigation measures post-construction and to require additional mitigation measures as the Board determines to be appropriate.

Dated at Montpelier, Vermont, this 16th day of November, 2009.

<u>s/James Volz</u>)	
)	PUBLIC SERVICE
)	
<u>s/David C. Coen</u>)	BOARD
)	
)	OF VERMONT
<u>s/John D. Burke</u>)	

OFFICE OF THE CLERK

FILED: November 16, 2009

ATTEST: s/Susan M. Hudson
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.